

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 6-8 have been amended to overcome the rejection under 35 USC § 112. In addition, claim 11 has been amended to address the dependency objection raised by the Examiner. Favorable reconsideration is respectfully solicited.

Claims 32-36 stand rejected under 35 USC § 102 as being anticipated by Martin et al, No. 3,978,315 ("Martin et al."). In addition, claims 38-40 stand rejected under 35 USC § 103 as being unpatentable over Martin in view of either Alexander, No. 3,110,571 ("Alexander"), or Flaitz et al, No. 4,764,341 ("Flaitz et al."). Applicants respectfully traverse these rejections.

Claims 32-36 and 38-40 all specify the application of a layer by thermal spraying.

Martin et al. fails to disclose an application of a layer by thermal spraying.

Martin et al. discusses that the strength of lithium aluminosilicate glass-ceramics can be improved by bonding layers applied to the surface.

The Example disclosed in the patent in col. 9 merely discloses a coating of a paste containing a powdered crystallizable zinc aluminosilicate glass that is applied to a cleaned lower surface of a glass ceramic plate. The paste is applied by doctor blade, is dried thereafter and fired to sinter and crystallize the paste. Then a protective coating, consisting essentially of cordierite is applied to the protectively-coated portions of the bottom surface of the plate.

Again this protective layer is applied in the form of a paste. This paste is air dried by heating and finally sintered to form a non-porous insulating cordierite layer.

An application in the form of a paste followed by a drying and sintering process is completely different from an application by thermal spraying.

A thermally sprayed coating has completely different characteristics than a coating formed by sintering.

Although Martin et al. in col. 9, line 4, discusses "a typical manufacturing process", only bonding by a suitable conductive film is disclosed. "Conventional methods" for applying the element materials to ceramic surfaces are utilized for applying the element materials to ceramic surfaces and for bonding them to the barrier layer material.

Apart from using binder and paste materials, Martin et al. does not disclose any other method for applying a coating layer to a substrate.

Moreover, thermal spraying is not a "conventional method" of applying a bonding layer to a substrate. This is due to the fact that a bonding layer usually involves some kind of adhesive forces effected by either chemical interactions or by surface interactions.

By contrast, thermal spraying, due to the high impact velocity and heat applied, achieves more mechanical adhesion of the thermally sprayed material to the surface.

Additionally, the secondary references, Alexander and Flaitz et al., also do not disclose any thermally sprayed layer.

Alexander discusses ceramic materials bonded to a metal having refractory oxide particles dispersed therein.

To form a bond between the refractory oxide filler material and the metal, the metal is heated for melting. The molten metal is brought into contact with the refractory material. Bonding is effected by solidifying the bonding metal, as by cooling.

Finally, Flaitz et al. merely discloses an intermediary oxide, such as Al_2O_3 , Cr_2O_3 , TiO_2 or ZrO_2 which is applied on to a substrate surface in the form of a paste and is then fired to create a temperature resistant ternary oxide.

The disclosed example discusses a nickel paste with possible additions of Al_2O_3 , Ca_2O_3 , TiO_2 or ZrO_2 and subsequent sintering after application of the paste.

Accordingly, method claims 32-36 and 38-40 are believed to patentably distinguish the present invention from the cited art. Pending claims 1-40 are therefore believed to be in condition for allowance. Favorable reconsideration is respectfully requested. If the Examiner

believes that personal communication will expedite prosecution of this application, the Examiner
is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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